

CLAIMS

1. A method of managing a multimedia file managing said multimedia file with index information, multimedia data of said multimedia file being able to be managed in each prescribed management unit, including the steps of:

generating said index information including a source identifier expressing a source having one or more of said management units associated with said multimedia file as a title frame, positions of a leading frame and tail frame of said title frame in said source, and a position of a reference frame for decoding said leading frame; and recording said index information onto a recording medium, attaching said index information to said multimedia file.

2. (amended) A managing method for a multimedia file managing said multimedia file with index information, multimedia data of said multimedia file being able to be managed in each prescribed management unit, including the steps of:

causing a user to specify one or more of said management units associated with said multimedia file as a title frame;

generating index information in which a bit stream obtained by encoding a specified title frame and encoding information indicating a system for the encoding are embedded; and

recording said index information onto a recording medium, attaching said index information to said multimedia file.

3. (amended) The managing method for a multimedia file according to claim 2, wherein said prescribed management unit is a frame of an image.

4. The managing method for a multimedia file according to claim 1 or 2, wherein

said step of generating index information includes a step of

generating a plurality of pieces of index information and
said recording step includes a step of recording said plurality of
pieces of index information and information for specifying the number of
said pieces of index information onto a recording medium, attaching said
5 plurality of pieces of index information and said information for specifying
the number of said pieces of index information to said multimedia file.

5. The managing method for a multimedia file according to claim 1,
further including the steps of:

10 causing a user to specify one or more of management units associated
with said multimedia file as a title frame; and

generating second index information in which a bit stream obtained
by encoding a specified title frame is embedded,

15 wherein said recording step including a step of recording said index
information and said second index information onto a recording medium
together with flags indicating kinds of said index information and said
second index information, respectively attaching said index information
and said second index information to said multimedia file together with
20 said flags indicating kinds of said index information and said second index
information.

6. A managing apparatus for a multimedia file managing said
multimedia file with index information, multimedia data of said
multimedia file being able to be managed in each prescribed management
25 unit, including:

an index information generating section generating index
information including a source identifier expressing a source having one or
more of said management units associated with said multimedia file as a
title frame, positions of a leading frame and tail frame of said title frame in
30 said source and a position of a reference frame for decoding said leading
frame; and

an index information attaching section recording said index
information onto a recording medium, attaching said index information to

said multimedia file.

7. (amended) A managing apparatus for a multimedia file managing said multimedia file with index information, multimedia data of said multimedia file being able to be managed in each prescribed management unit, including:

a frame specifying section forcing a user to specify and extract one or more of said management units associated with said multimedia file as a title frame;

an index information generating section generating index information in which a bit stream obtained by encoding an extracted title frame and encoding information indicating a system for the encoding are embedded; and

an index information attaching section recording said index information onto a recording medium, attaching said index information to said multimedia file.

8. The managing apparatus for a multimedia file according to claim 6 or 7, wherein said multimedia file is an image file.

9. (amended) The managing apparatus for a multimedia file according to claim 8, wherein said prescribed management unit is a frame of an image.

10. The managing apparatus for a multimedia file according to claim 6 or 7, wherein said index information generating section generates a plurality of pieces of index information and

said index information attaching section records said plurality of pieces of index information and information for specifying the number of said pieces of index information onto a recording medium, attaching said plurality of pieces of index information pieces and said information for specifying the number of said index information pieces to said multimedia file.

11. The managing apparatus for a multimedia file according to claim 6, wherein said index information generating section generates said index information including said source identifier specifying a title frame having one or more of said management units in said multimedia file, positions of a leading frame and tail frame of said title frame and a position of a reference frame for decoding said leading frame.

12. The managing apparatus for a multimedia file according to claim 6, wherein said index information generating section generates said index information including said source identifier specifying a title frame having one or more of said management units in a second multimedia file different from said multimedia file, positions of a leading frame and tail frame of said title frame and a position of a reference frame for decoding said leading frame.

13. The managing apparatus for a multimedia file according to claim 6, further including: an index information specifying section causing a user to specify one or more of said management units associated with said multimedia file as a title frame,

wherein

said index information generating section generating second index information in which a bit stream obtained by encoding a specified title frame is embedded and

said index information recording section recording said index information and said second index information onto a recording medium together with flags indicating kinds of said index information and said second index information, respectively, attaching said index information and said second index information to said multimedia file together with said flags indicating kinds of said index information and said second index information.

14. (added) A managing method for a multimedia file managing

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said multimedia file with index information, including the steps of:
generating index information including a source identifier expressing
a still picture file different from said multimedia file; and
recording said index information onto a recording medium, attaching
5 said index information to said multimedia file.

15. (added) A managing apparatus for a multimedia file managing
said multimedia file with index information, including:

an index information generating section generating index
10 information including a source identifier expressing a file different from
said multimedia file; and

an index information attaching section recording said index
information onto a recording medium, attaching said index information to
said multimedia file.

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